No. 200700320

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Syngenta Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR ORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TOMATO

'SX 387'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this twenty-third day of November, in the year two thousand and seven.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
Syngenta Seeds, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME

3. VARIETY NAME
SX 387

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
600 North Armstrong Place
Boise, ID 83704

5. TELEPHONE *(include area code)*
208-465-8522

6. FAX *(include area code)*
208-467-4559

FOR OFFICIAL USE ONLY

PVPO NUMBER
#200700320

FILING DATE
May 10, 2007

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Delaware

9. DATE OF INCORPORATION
February 25, 1975

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 4,382.00
DATE 05-10-2007

CERTIFICATION FEE:
$ 768.00
DATE 9/19/07

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Kim Briggs
c/o Syngenta Seeds, Inc.
6338 Highway 20-26
Nampa, ID 83687

11. TELEPHONE (Include area code)
208-465-8522

12. FAX (Include area code)
208-467-4559

13. E-MAIL
kim.briggs@syngenta.com

14. CROP KIND *(Common Name)*
Tomato

15. GENUS AND SPECIES NAME OF CROP
Lycopersicon

16. FAMILY NAME *(Botanical)*
Solanacea

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☑ YES ☐ NO

18. DOES THE VARIETY CONTAIN ANY TRANSGENES? ***(OPTIONAL)***
☐ YES ☑ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
(Follow instructions on reverse)

a. ☑ Exhibit A. Origin and Breeding History of the Variety
b. ☑ Exhibit B. Statement of Distinctness
c. ☑ Exhibit C. Objective Description of Variety
d. ☐ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☑ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☑ Exhibit F. Declaration Regarding Deposit
g. ☑ Voucher Sample *(3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☑ Filing and Examination Fee ($4,382), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 21 and 22 below)* ☑ NO *(If "no", go to item 23)*

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☑ YES ☐ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☑ YES ☐ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Kim Briggs			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Kim Briggs			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
PVP Specialist	5-8-2007		

(See reverse for instructions and information collection burden statement)

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for $4,382 ($518 filing fee and $3,864 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice).* **NEW:** With the application for a seed reproduced variety **or by direct deposit soon after filing**, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to **reproduce** the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of $768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

Plant Variety Protection Office
Telephone: (301) 504-5518 **FAX:** (301) 504-5291
General E-mail: PVPOmail@usda.gov
Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

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SPECIFIC INSTRUCTIONS:
To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

22. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

23. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*
Intragroup sale to Dulcinea (an entity of Syngenta Seeds, Inc.) on July 13, 2006.

24. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*
National List - European Community
Granted 04-11-2007; App. No: NL15440 / Natl. List - Netherlands
Granted 07-20-2006
App. No. 15440 TMT387 / PVR - European Commun.
Running / Filed: 2-2-2006
App. No. 20061353

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Exhibit A
Origin and Breeding History

Hybrid SX 387

SX 387 is a hybrid that shows resistance to several diseases and is characterized by its distinct brown exterior color at maturity and dark green colored ~~interior~~ external at ~~mature~~ immature stage. The parents of SX 387 are SENG 9155 (female parent) and SENG 9156 (male parent).

per e mail 9-12-2007

The breeding method is pedigree selection method.

LMC 9-13-2007

Breeding History of Female Parent – SENG 9155

SENG 9155, the female parent of SX 387, is described in Plant Variety Protection Application Number Number 200700294. SENG 9155 is characterized by its good tasting quality and distinctive brown fruit color at maturity. This line is resistant Tobacco Mosaic Virus, Fusarium wilt, and Verticillum wilt.

Breeding History of Male Parent – SENG 9156

SENG 9156, the male parent of SX 387, was developed at our Syngenta Seeds, Inc., El Ejido, Spain location. Plants were selected for resistance to Verticilium wilt, Fusarium wilt and root knot and good shelf-life.

In 1991, Syngenta Seeds, Inc., found in a segregating population of the commercial variety `Camone' a mutant plant with brown fruit color at maturity and started a development program for tomatoes with brown fruit color and enhanced taste with different disease resistances. From this program two different inbreds were selected for crossing (SENG9155 and SENG9156) to build up a hybrid with brown fruit color, enhanced taste and resistance to ToMV, Verticillium wilt, Fusarium wilt races 1&2 and root knot nematodes, and good shelf-life.

In January 2000, the mutant for brown color at maturity was planted in the field and this inbred was crossed with the commercial variety Pitenza (Enza Zaden), well known for its production ability to harvest as cluster and shelf-life The aim was to develop a segregating population with good cluster shape, good flavor, good shelf-life and brown fruit color at maturity.

- In May 2001, 150 plants of the F2 coming from this crossing were planted with staked plot number 0105ALSM0203 in Almeria Syngenta Station under greenhouse environment and 9 plants were selected.
- In January 2002, the 9 F3 selections were planted (25 plants each) under staked plot number 2ALP27014.1-2ALP27014.9. 22 plants were selected and the seeds were collected. The seeds were sent to the pathology department for disease testing in France.
- In August 2002, the F4's were planted (15 plants each) under staked plot numbers 2ALA20400.1-2ALA20400-22. 30 plants were selected.
- January 2003, 5 F5 lines were planted (10 plants each), the best two lines were selected.

- In August 2003, the 2 F6's were planted (10 Plants each). Fruits of both lines were sent to the Fruit Quality Service in Almeria for analysis and the best line with enhanced flavor was selected. Seeds from this F7 line were sent to the pathology department in France to confirm the resistances.
- In January 2004, the F7 was planted under the name SENG 9156 with 15 plants. SENG 9156 was observed for stability and the harvested seeds were sent to the production department in Holland where they were grown for two cycles and found to be stable and uniform.

The main selection criteria were brown fruit at maturity, taste, production and uniform fruit distribution along the cluster. The variety is uniform and stable within commercially acceptable limits. A small percentage of variants can occur as is the same with other tomato varieties. However, no variants were observed during the two years in which the variety was observed to be uniform and stable.

Exhibit A – Selection Criteria

ToMV, Verticillium wilt, Fusarium wilt races 1&2, root knot nematodes, a good shelf-life; in addition to brown fruit color, enhanced flavor and overall good agronomic characteristics.

Stability and Uniformity

The variety SX 387 was tested in trials conducted in :

Almeria , Spain (Fall 2004)
Almeria , Spain (Spring 2005)
Almeria , Spain (Fall 2005)
Culican, Mexico(Fall 2005)
Culican, Mexico(Spring 2006)
Woodland, CA(Spring 2006)

In all trials for six generations at three locations, SX 387, was uniform and stable for all traits as described in Exhibit C. No variants were observed.

Exhibit B
Statement of Distinctness
SX 387

SX 387 is a hybrid typically grown in greenhouse conditions for fresh market.

SX 387 is most similar to the Black Prince tomato variety, but differs in the following:

- SX 387 has a much better shelf-life of close to two weeks post harvest while Black Prince does not conserve more than 3 days at a room temperature (20-22°C).

- SX 387 differs from Black Prince in size. SX 387 is 120 – 140 grams while Black Prince is 80-110 grams. Data range found after 8 harvests during two months.

Disease Resistances

While SX 387 is resistant to ToMV, Verticillium wilt, Fusarium will races 1&2 and root knot nematodes, Black Prince is susceptible to all of these diseases.

Firmness Analysis

Two separate firmness analysis were conducted in two separate seasons (spring and fall) of 2005 at our El Ejido, Spain location. The mean for Black Prince firmness was 29.3 while the mean for SX 387 firmness was 49.7. The data from the analysis is attached.

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Exhibit B - Firmness Analysis for SX 387 and Black Prince

Variety	Trial	Harvest	Weight	Firmness (Grefa Machine)
Black Prince	El Ejido Spring 2005	1	80	29
Black Prince	El Ejido Spring 2005	2	77	26
Black Prince	El Ejido Spring 2005	3	93	31
Black Prince	El Ejido Spring 2005	4	98	31
Black Prince	El Ejido Spring 2005	5	103	27
Mean			**90.2**	**28.8**
Black Prince	El Ejido Fall 2005	1	80	33
Black Prince	El Ejido Fall 2005	2	107	27
Black Prince	El Ejido Fall 2005	3	81	30
Black Prince	El Ejido Fall 2005	4	104	30
Black Prince	El Ejido Fall 2005	5	92	29
Mean			**92.8**	**29.8**
SX387	El Ejido Spring 2005	1	137	50
SX387	El Ejido Spring 2005	2	129	42
SX387	El Ejido Spring 2005	3	143	42
SX387	El Ejido Spring 2005	4	116	57
SX387	El Ejido Spring 2005	5	115	60
Mean			**128**	**50.2**
SX387	El Ejido Fall 2005	1	116	42
SX387	El Ejido Fall 2005	2	134	38
SX387	El Ejido Fall 2005	3	132	59
SX387	El Ejido Fall 2005	4	129	51
SX387	El Ejido Fall 2005	5	122	56
Mean			**126.6**	**49.2**

Ave. Weight = 91.5
Ave. Firmness = 29.3

Ave. Weight = 127.3
Ave. Firmness = 49.7

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Analysis Summary

Dependent variable: Weight
Factors:
Variety
Trial
Harvest

Number of complete cases: 20

The StatAdvisor

This procedure performs a multifactor analysis of variance for Weight. It constructs various tests and graphs to determine which factors have a statistically significant effect on Weight. It also tests for significant interactions amongst the factors, given sufficient data. The F-tests in the ANOVA table will allow you to identify the significant factors. For each significant factor, the Multiple Range Tests will tell you which means are significantly different from which others. The Means Plot and Interaction Plot will help you interpret the significant effects. The Residual Plots will help you judge whether the assumptions underlying the analysis of variance are violated by the data.

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Analysis of Variance for Weight - Type III Sums of Squares

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
MAIN EFFECTS					
A:Variety	6408,2	1	6408,2	47,09	0,0000
B:Trial	1,8	1	1,8	0,01	0,9102
C:Harvest	235,8	4	58,95	0,43	0,7823
RESIDUAL	1769,0	13	136,077		
TOTAL (CORRECTED)	8414,8	19			

All F-ratios are based on the residual mean square error.

The StatAdvisor

The ANOVA table decomposes the variability of Weight into contributions due to various factors. Since Type III sums of squares (the default) have been chosen, the contribution of each factor is measured having removed the effects of all other factors. The P-values test the statistical significance of each of the factors. Since one P-value is less than 0,05, this factor has a statistically significant effect on Weight at the 95,0% confidence level.

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Table of Least Squares Means for Weight
with 95,0 Percent Confidence Intervals

Level	Count	Mean	Stnd. Error	Lower Limit	Upper Limit
GRAND MEAN	20	109,4			
Variety					
Black Prince	10	91,5	3,68886	83,5307	99,4693
SX387	10	127,3	3,68886	119,331	135,269
Trial					
El Ejido Fall 2005	10	109,7	3,68886	101,731	117,669
El Ejido Spring 200	10	109,1	3,68886	101,131	117,069
Harvest					
1	4	103,25	5,8326	90,6494	115,851
2	4	111,75	5,8326	99,1494	124,351
3	4	112,25	5,8326	99,6494	124,851
4	4	111,75	5,8326	99,1494	124,351
5	4	108,0	5,8326	95,3994	120,601

The StatAdvisor

This table shows the mean Weight for each level of the factors. It also shows the standard error of each mean, which is a measure of its sampling variability. The rightmost two columns show 95,0% confidence intervals for each of the means. You can display these means and intervals by selecting Means Plot from the list of Graphical Options.

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Multiple Range Tests for Weight by Variety

Method: 95,0 percent LSD

Variety	Count	LS Mean	LS Sigma	Homogeneous Groups
Black Prince	10	91,5	3,68886	X
SX387	10	127,3	3,68886	X

Contrast	Difference	+/- Limits
Black Prince - SX387	*-35,8	11,2703

* denotes a statistically significant difference.

The StatAdvisor

This table applies a multiple comparison procedure to determine which means are significantly different from which others. The bottom half of the output shows the estimated difference between each pair of means. An asterisk has been placed next to 1 pair, indicating that this pair shows a statistically significant difference at the 95,0% confidence level. At the top of the page, 2 homogenous groups are identified using columns of X's. Within each column, the levels containing X's form a group of means within which there are no statistically significant differences. The method currently being used to discriminate among the means is Fisher's least significant difference (LSD) procedure. With this method, there is a 5,0% risk of calling each pair of means significantly different when the actual difference equals 0.

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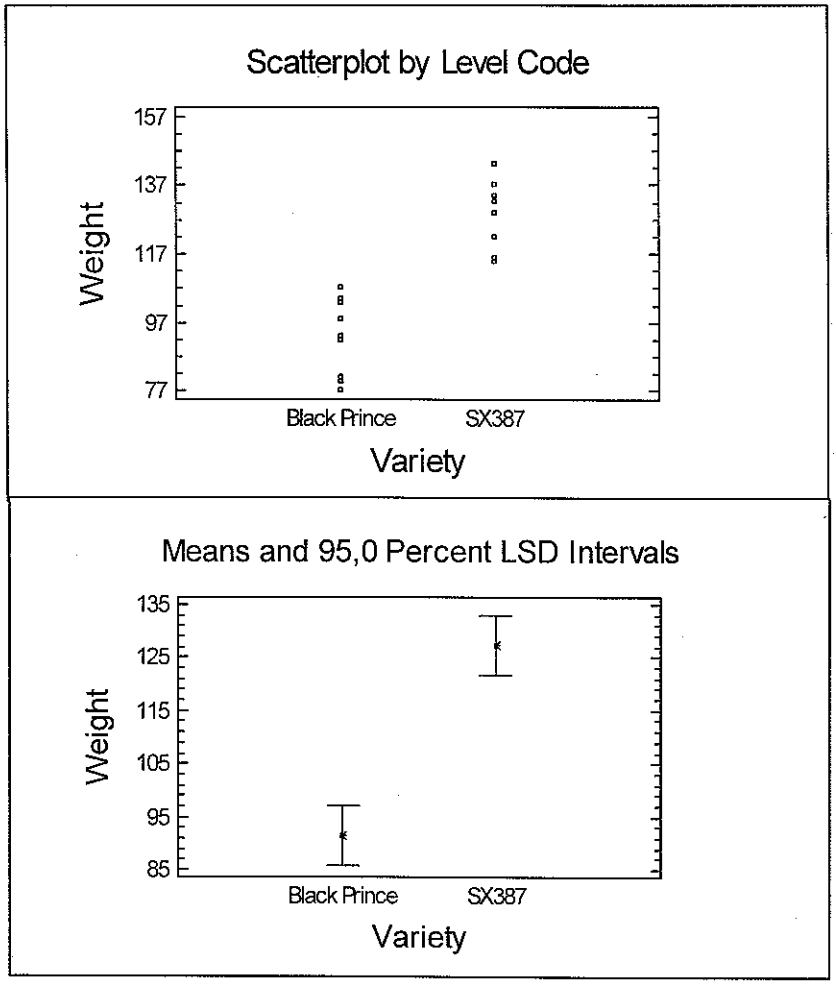

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Analysis Summary

Dependent variable: Firmness
Factors:
Variety
Trial
Harvest

Number of complete cases: 20

The StatAdvisor

This procedure performs a multifactor analysis of variance for Firmness. It constructs various tests and graphs to determine which factors have a statistically significant effect on Firmness. It also tests for significant interactions amongst the factors, given sufficient data. The F-tests in the ANOVA table will allow you to identify the significant factors. For each significant factor, the Multiple Range Tests will tell you which means are significantly different from which others. The Means Plot and Interaction Plot will help you interpret the significant effects. The Residual Plots will help you judge whether the assumptions underlying the analysis of variance are violated by the data.

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Analysis of Variance for Firmness - Type III Sums of Squares

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
MAIN EFFECTS					
A:Variety	2080,8	1	2080,8	67,51	0,0000
B:Trial	0,0	1	0,0	0,00	1,0000
C:Harvest	243,5	4	60,875	1,97	0,1579
RESIDUAL	400,7	13	30,8231		
TOTAL (CORRECTED)	2725,0	19			

All F-ratios are based on the residual mean square error.

The StatAdvisor

The ANOVA table decomposes the variability of Firmness into contributions due to various factors. Since Type III sums of squares (the default) have been chosen, the contribution of each factor is measured having removed the effects of all other factors. The P-values test the statistical significance of each of the factors. Since one P-value is less than 0,05, this factor has a statistically significant effect on Firmness at the 95,0% confidence level.

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Table of Least Squares Means for Firmness
with 95,0 Percent Confidence Intervals

Level	Count	Mean	Stnd. Error	Lower Limit	Upper Limit
GRAND MEAN	20	39,5			
Variety					
Black Prince	10	29,3	1,75565	25,5071	33,0929
SX387	10	49,7	1,75565	45,9071	53,4929
Trial					
El Ejido Fall 2005	10	39,5	1,75565	35,7071	43,2929
El Ejido Spring 200	10	39,5	1,75565	35,7071	43,2929
Harvest					
1	4	38,5	2,77593	32,503	44,497
2	4	33,25	2,77593	27,253	39,247
3	4	40,5	2,77593	34,503	46,497
4	4	42,25	2,77593	36,253	48,247
5	4	43,0	2,77593	37,003	48,997

The StatAdvisor

This table shows the mean Firmness for each level of the factors. It also shows the standard error of each mean, which is a measure of its sampling variability. The rightmost two columns show 95,0% confidence intervals for each of the means. You can display these means and intervals by selecting Means Plot from the list of Graphical Options.

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Multiple Range Tests for Firmness by Variety

Method: 95,0 percent LSD

Variety	Count	LS Mean	LS Sigma	Homogeneous Groups
Black Prince	10	29,3	1,75565	X
SX387	10	49,7	1,75565	X

Contrast	Difference	+/- Limits
Black Prince - SX387	*-20,4	5,36391

* denotes a statistically significant difference.

The StatAdvisor

This table applies a multiple comparison procedure to determine which means are significantly different from which others. The bottom half of the output shows the estimated difference between each pair of means. An asterisk has been placed next to 1 pair, indicating that this pair shows a statistically significant difference at the 95,0% confidence level. At the top of the page, 2 homogenous groups are identified using columns of X's. Within each column, the levels containing X's form a group of means within which there are no statistically significant differences. The method currently being used to discriminate among the means is Fisher's least significant difference (LSD) procedure. With this method, there is a 5,0% risk of calling each pair of means significantly different when the actual difference equals 0.

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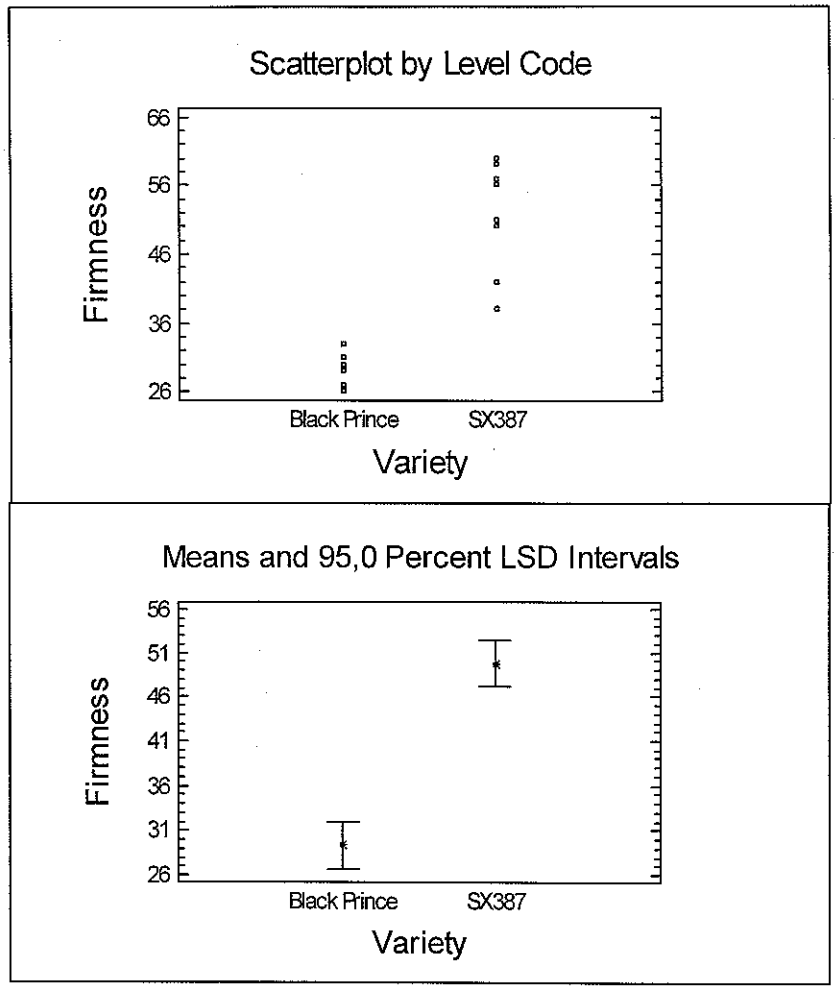

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EXHIBIT C

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
TOMATO (*Lycopersicon esculentum*)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
Syngenta Seeds, Inc.		~~SX387~~ SX 387
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)		FOR OFFICIAL USE ONLY
SYNGENTA SEEDS 600 North Armstrong Place Boise, ID 83704		PVPO NUMBER #200700320

Choose responses for the following characters which best fit your variety. Complete this form as fully as possible for best characterization of the variety. When a single quantitative value is requested (e.g., fruit weight), your answer should be the mean of an adequate-sized, unbiased sample of plants. Use leading zeros when necessary (e.g., 0 9 or 0 8 1, etc.). The applicant variety should be compared with at least one well-known standard check variety of the same type (see list of recommended check varieties below), and grown in the same trials. The characters on this form should be described from plants grown under normal conditions of culture for the variety. Indicated by check whether trial data are from (green house) or field ___ planting. Trials direct-seeded ___ or (transplanted); (staked) or unstaked ___. Give locations and dates of seeding and transplanting here: **LOCATION:ALMERIA (SPAIN). SOWING DATE:7-10-06. PLANTING DATE:8-10-06**

COMPARISONS SHOULD BE MADE TO ONE OR MORE CHECK VARIETIES IN THE FOLLOWING LIST. IF AT ALL POSSIBLE, ENTER THE NUMBER OF THE CHECK IN BOXES WHERE IDENTITY OF CHECK IS REQUESTED.

1 = Ace 55 VF	7 = Homestead 24	13 = Red Rock	19 = VF 134
2 = Campbell 37	8 = Marglobe	14 = Roma VF	20 = US 28
3 = Chico III	9 = Murietta	15 = Rutgers	21 = VF 145 B 7879
4 = Flora Dade	10 = New Yorker	16 = Sunray	22 = Other (Specify) DANIELA
5 = Florida MH-1	11 = Ohio MR-13	17 = Tropic	23 = Other (Specify)
6 = Heinz 1350	12 = Red Cherry Large	18 = UC 82	24 = Other (specify)

1. SEEDLING

2 Anthocyanin in hypocotyl of 2 – 15 cm seedling: 1 = Absent 2 = Present

1 Habit of 3 – 4 week old seedling: 1 = Normal 2 = Compact

2. MATURE PLANT (at maximum vegetative development)

2 9 0 cm Height

1 Growth: 1 = Indeterminate 2 = Determinate

1 Form: 1 = Lax, open 2 = Normal 3 = Compact 4 = Dwarf 5 = Brachytic

2 Size of canopy (compared to others of similar type): 1 = Small 2 = Medium 3 = Large

1 Habit: 1 = Sprawling (decumbent) 2 = Semi-Erect 3 = Erect ('Dwarf Champion')

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3. STEM

2 Branching: 1 = Sparse ('Brehm's Solid Red', 'Fireball') 2 = Intermediate ('Westover') 3 = Profuse ('UC 82')

1 Branching at cotyledonary or first leafy node: 1 = Present 2 = Absent

4 No. of nodes between first inflorescences: 1 = 1–4 2 = 4–7 3 = 7–10 4 = 10 or more

3 No. of nodes between early (1st – 2nd, 2nd – 3rd) inflorescences. 3 No. of nodes between later developing inflorescences.

2 Pubescence on younger stems: 1 = Smooth (no long hairs) 2 = Sparsely hairy (scattered long hairs) 3 = Moderately hairy 4 = Densely hairy or wooly

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4. LEAF (mature leaf beneath the 3rd inflorescences)

1 Type: 1 = Tomato 2 = Potato ('Trip-L-Crop') 1 Morphology (choose illustration at the end of this form that is most similar)

1 Margins of major leaflets: 1 = Nearly entire 2 = Shallowly toothed or scalloped 3 = Deeply toothed or cut, sps. Toward base

2 Marginal rolling or wiltiness: 1 = Absent 2 = Slight 3 = Moderate 4 = Strong

2 Onset of leaflet rolling: 1 = Early-Season 2 = Mid-Season 3 = Late Season

1 Surface of major leaflets: 1 = Smooth 2 = Rugose (bumpy or veiny)

1 Pubescence: 1 = Smooth (no long hairs) 2 = Normal 3 = Hirsute 4 = Wooly

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5. INFLORESCENCE (make observations on 3rd inflorescence)

1 Type: 1 = Simple 2 = Forked (2 major axes) 3 = Compound (much branched)

0 6 Number of flowers in inflorescence. Average

1 Leafy or "running" inflorescences: 1 = Absent 2 = Occasional 3 = Frequent

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6. FLOWER

1 Calyx: 1 = Normal, lobes awl-shaped 2 = Macrocalyx, lobes large, leaflike 3 = Fleshy

3 Calyx-lobes: 1 = Shorter then corolla 2 = Approx. equalling corolla 3 = Distinctly longer than corolla

1 Corolla color: 1 = Yellow 2 = Old Gold 3 = White or Tan

2 Style pubescence: 1 = Absent 2 = Sparse 3 = Dense

1 Anthers: 1 = All fused into tube 2 = Separateing into 2 or more groups at anthesis

2 Fasciation (1st flower of 2nd or 3rd inflorescence): 1 = Absent 2 = Occasionally present 3 = Frequently present

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7. FRUIT (3rd fruit of 2nd or 3rd cluster) For the first 5 characters below, match your variety with the most similar illustration on pages at the end of this form.

2 Typical fruit shape 1 Shape of transverse section 2 Shape of stem end

1 Shape of blossom end 2 Shape of pistil scar

1 Abscission layer: 1 = Present (pedicellate) 2 = Absent (jointless)

1 Point of detachment of fruit at harvest: 1 = At pedicel joint 2 = At calyx attachment

0 9 mm Length of dedicel (from joint to calyx attachment)

0 5 8 mm Length of mature fruit (stem axis) 0 5 3 mm Length, check var. no. 2 2

0 6 0 mm Diameter of fruit at widest point 0 6 6 mm Diameter, check var. no. 2 2

1 1 0 g Weight of mature fruit 1 4 0 g Weight, check var. no. 2 2

2 No. of locules: 1 = Two 2 = Three and four 3 = Five or more

1 Fruit surface: 1 = Smooth 2 = Slight ly rough 3 = Moderately rough or ribbed

5 Fruit base color (mature-green stage):
1 = Light Green ('Lanai', 'VF 145-F5') 2 = Light Gray-Green 3 = Apple or Medium Green ('Heinz 1439 VF') 4 = Yellow Green 5 = Dark Green

2 Fruit Pattern (mature-green stage): 1 = Uniform Green 2 = Green-Shouldered 3 = Radial Stripes on Sdes of Fruit

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7. FRUIT (continued)

1 Shoulder color if different from base: 1 = Dark Green 2 = Grey Green 3 = Yellow Green

6 Fruit color, full-ripe: 1 = White 2 = Yellow 3 = Orange 4 = Pink 5 = Red 6 = Brownish 7 = Greenish 8 = Other (specify) _____

5 Flesh color, full-ripe: 1 = Yellow 2 = Pink 3 = Red/Crimson 4 = Orange 5 = Other (specify) Brownish

2 Flesh color: 1 = Uniform 2 = With lighter and darker areas in walls

3 Locular gel color of table-ripe fruit: 1 = Green 2 = Yellow 3 = Red

2 Ripening: 1 = Blossom-to-stem end 2 = Uniform

2 Ripening: 1 = Inside out 2 = Uniformly 3 = Outside in

1 Stem scar size: 1 = Small ('Roma') 2 = Medium ('Rutgers') 3 = Large

1 Core: 1 = Coreless (absent or smaller than 6x6 mm) 2 = Present

2 Epidermis color: 1 = Colorless 2 = Yellow

1 Epidermis: 1 = Normal 2 = Easy-peel

2 Epidermis texture: 1 = Tender 2 = Average 3 = Tough

7.7 Thickness of pericarp

8.6 Thickness of pericarp. Check var. no. 2 2

2 Anthocyanin in hypocotyl of 2 – 15 mc seedling: 1 = Absent 2 = Present

1 Habit of 3 – 4 week old seedling: 1 = Normal 2 = Compact

8. RESISTANCE TO FRUIT DISORDER (Use code: 0 = Unknown 1 = Susceptible 2 = Resistant)

1 Blossom end rot	___ Catface	___ Fruit pox	___ Zippering
2 Blotchy ripening	___ Cracking, concentric	___ Gold fleck	___ Other (specify) _____
___ Bursting	1 Cracking, radial	2 Graywall	

9. DISEASE AND PEST REACTION (Use code: 0 = Unknown 1 = Susceptible 2 = Resistant) NOTE: If claim of novelty is based wholly or in substantial part upon disease resistance, trial data should be appended. These should specify the method of testing, the reaction of the application variety, and reaction of well-known check varieties grown in the trial (identified by name).

Viral Diseases:

___ Cucumber mosaic	2 Tobacco mosaic, Race 0	2 Tobacco mosaic, Race2[2]
___ Curly top	2 Tobacco mosaic, Race 1	___ Tomato spotted wilt
___ Potato-Y virus	2 Tobacco mosaic, Race 2	___ Tomato yellows
___ Blotchy ripening	___ Cracking, concentric	___ Gold fleck

___ Other virus (specify) _____

Bacterial Diseases:

___ Bacterial canker (*Corynebacterium miciganense*)	___ Bacterial spot (*Xanthomonas vesicatorium*)
___ Bacterial soft rot (*Erwinia corotovora*)	___ Bacterial wilt (*Pseudomonas solanacearum*)
___ Bacterial speck (*Pseudomonas tomato*)	___ Other bacterial disease (specify) _____

Fungal Diseases:

___ Anthracnose (*Colletotrichum* spp.)	___ Leaf mold, Race 1 (*Cladosporium fulvum*)
___ Brown root rot or corky root (*Pyrenochaeta lycopersici*)	___ Leaf mold, Race 2
___ Collar rot or stem canker (*Alternaria solani*)	___ Leaf mold, Race 3
___ Early blight defoliation (*Alternaria solani*)	___ Leaf mold, other races (specify) _____
2 Fusarium wilt, Race 1 (*F. oxysporum f. lycopersici*)	___ Nailhead spot (*Alternaria tomato*)
2 Fusarium wilt, Race 2	___ Seporia leafspot (*S. lycopersici*)
___ Fusarium wilt, Race 3	___ Target leafspot (*Corynespora casiicola*)

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9. DISEASE AND PEST REACTION (continued)

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Fungal Diseases:

1 Gray leaf spot (*Stemphylium spp.*)
___ Late blight, Race 0 (*Phytophthora infestans*)
___ Late blight, Race 1
2 Verticillium wilt, Race 1 (*V. albo-atrum*)
___ Verticillium wilt Race 2
___ Other fungal disease (specify) _____

Insects and Pests:

___ Colorado potato beetle (*Leptinotarsa decemlineata*)
2 Southern root knot nematode (*Meloidogyne incognita*)
___ Spider mites (*Tetranychus* spp.)
___ Sugar beet army worm (*Spodoptera exigual*)
___ Tobacco flea beetle (*Epitrix hirtipennis*)
___ Tomato hornworm (*Manduca quinquemaculata*)
___ Tomato fruitworm (*Heliothis zea*)
___ Whitefly (*Trialeurodes vaporariorum*)
___ Other (specify) _____

Pollutants:

___ Ozone ___ Sulfur dioxide ___ Other (specify) _____

10. CHEMISTRY AND COMPOSITION OF FULL-RIPE FRUITS Suggested test methods may be found in "Tomato Products", 5th ed., National Canners Assn. Bull. 27-L. Please specify test methods or give a reference to methods used. Fill in table below with values for the new variety and for at lease one well-known check variety of similar type grown in the same trial. Specify names or numbers of check varieties.

	Submitted Variety	Check Variety _____	Check Variety _____	Check Variety _____
pH				
Titratable acidity, as % citric				
Total solids (dry matter, seeds and skin removed)				
Soluble solids as °Brix				

11. PHENOLOGY Express length of developmental stages either as calendar days or as heat units (growing degree days), in degrees Celsius. If heat units are used, indicate the base temperature used in their calculatoin hear _____°C. See paper by Warnock under "References" for method. Give comparative data for at least one check variety; identify checks by name or by number from table on page 1.

	Application Variety	Check Variety _____	Check Variety _____	Check Variety _____
Seeding to 50% flow (1 open on 50% of plants)				
Seed to once over harvest (if applicable)				

2 Fruiting season: 1 = Long ('Marglobe) 2 = Medium ('Westover') 3 = Short, concentrated ('VF 145') 4 = Very concentrated ('UC 82')

2 Relative maturity in areas tested: 1 = Early 2 = Medium early 3 = Medium 4 = Medium late 5 = Late 6 = Variable
(If relative maturity is known to differ by location or environment, please explain on separate sheet)

12. ADAPTATION If more than one category applies, list all in rank order.

2 Culture: 1 = Field 2 = Greenhouse

___ ___ ___ 2 Principle use(s): 1 = Home garden 2 = Fresh market 3 = Whole-pack canning 4 = Concentrated products
5 = Other (specify) _____

1 Machine harvest: 1 = Not adapted 2 = Adapted

___ ___ ___ ___ Regions to which adaptation has been demonstrated:
1 = Northeast 2 = Mid Atlantic 3 = Southeast 4 = Florida 5 = Great Plains
6 = South-central 7 = Intermountain West 8 = Northwest 9 = California: Sacramento and Upper San Joaquin Valley
10 = California: Coastal Areas 11 = California: Southern San Joaquin Valley & Deserts

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ILLUSTRATIONS OF TOMATO LEAF AND FRUIT CHARACTERISTICS

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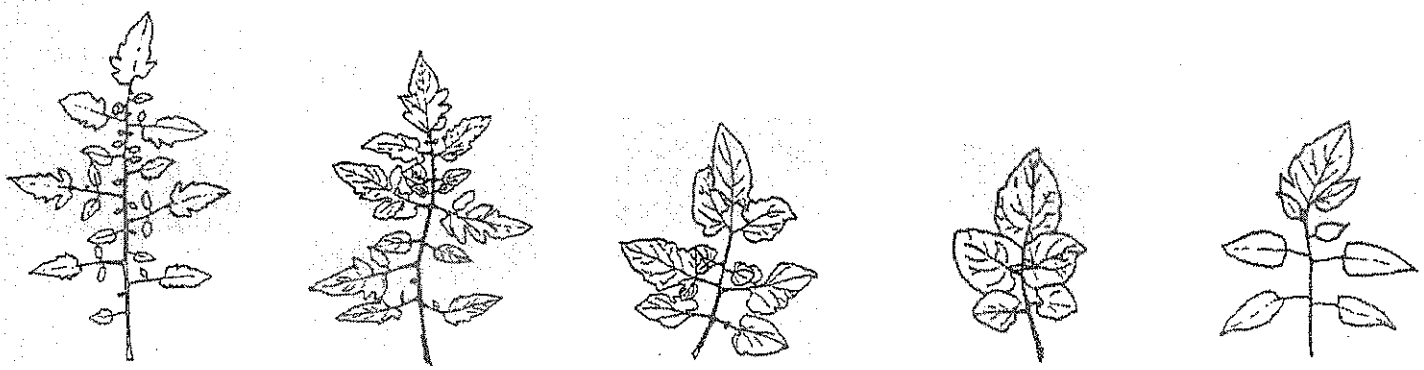
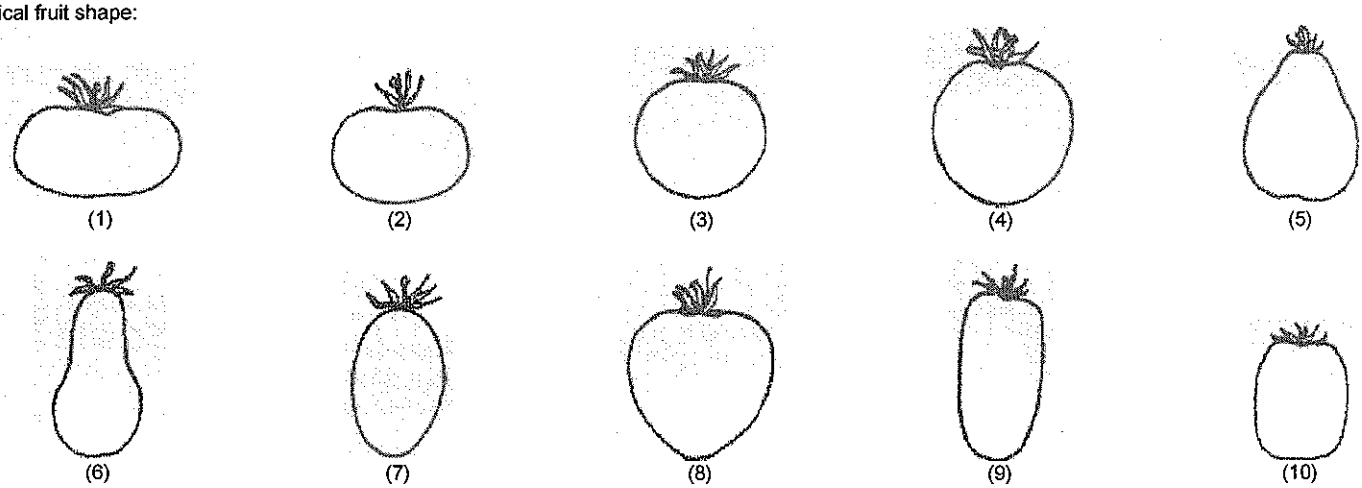
4. LEAF

Morphology:

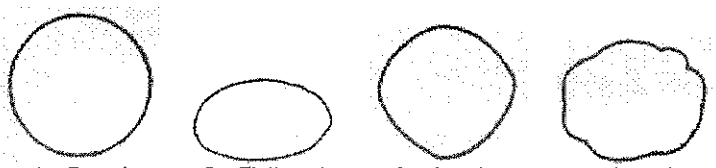


7. FRUIT

Typical fruit shape:

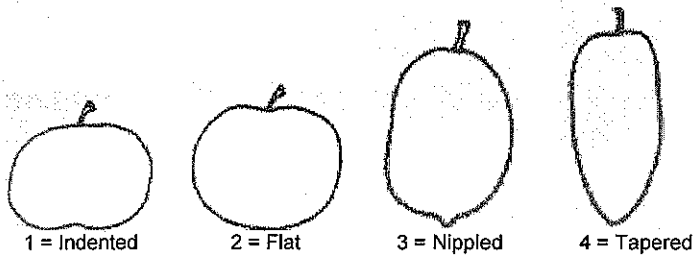


Shape of transverse section:



Shape of stem end:

Shape of blossom end:



Shape of pistil scar:

REFERENCES

Anonymous, 1976. All About Tomatoes. Ortho Books, Chevron Chemical Co., San Francisco. In three volumes: Midwest/Northeast Edition, West Edition, and South Edition.

Ware, G.W. & J.P. McCollum, 1968. Producing Vegetable Crops. The Interstate Printer & Publishers, Inc., Danville, Illinois. Chapter 30, pp. 451-473, "Tomatoes".

Warnock, S.J. 1978. Using Tomato Heat Units. Leaflet No. 6, Campbell Institue for Agricultural Research, Camden, NJ. 10 p.

Webb, R.E., T.H. Barksdale, & A.K. Stoner, 1973. "Tomatoes", pp. 344-361, in: Nelson, R.R. (Ed.), Breeding Plants for Disease Resistance. Pennsylvania State University Press, University Park.

Young, P.A. & J.W. MacArthur, 1947. Horticultural characters of tomatoes. Bull. Texas Agric. Exper. Station No. 698.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Syngenta Seeds, Inc.		SX 387
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	**5. TELEPHONE** *(Include area code)*	**6. FAX** *(Include area code)*
600 North Armstrong Place Boise, ID 83704	208-465-8522	208-467-4559
	7. PVPO NUMBER #200700320	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ **YES** ☐ **NO**

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ **YES** ☐ **NO**

10. Is the applicant the original owner? ☑ **YES** ☐ **NO** **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ **YES** ☐ **NO** **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ **YES** ☐ **NO** **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

SX 387 was bred and developed by plant breeders employed by Syngenta Seeds, Inc. By agreement between the employee and Syngenta Seeds, Inc., all rights to any invention, discovery or development made by the employee while employed by Syngenta Seeds were assigned to Syngenta Seeds, Inc., with no rights retained by the employee.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	TEMPORARY OR EXPERIMENTAL DESIGNATION
Syngenta Seeds, Inc.	600 North Armstrong Place Boise, ID 83704	VARIETY NAME SX 387
NAME OF OWNER REPRESENTATIVE (S)	**ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)***	FOR OFFICIAL USE ONLY
Kim Briggs	6338 Highway 20-26 Nampa, ID 83687	PVPO NUMBER #200700320

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Kim Briggs
Signature

4-18-2007
Date

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